

Gary M. Hoffman (*Pro Hac Vice*)  
Kenneth W. Brothers (*Pro Hac Vice*)  
DICKSTEIN SHAPIRO MORIN  
& OSHINSKY, LLP  
2101 L Street, NW  
Washington, DC 20037-1526  
Phone (202) 785-9700  
Fax (202) 887-0689

Edward A. Meilman (*Pro Hac Vice*)  
DICKSTEIN SHAPIRO MORIN  
& OSHINSKY, LLP  
1177 Avenue of the Americas  
New York, New York 10036-2714  
Phone (212) 835-1400  
Fax (212) 997-9880

Jeffrey B. Demain, State Bar No. 126715  
Jonathan Weissglass, State Bar No. 185008  
ALTSHULER, BERZON, NUSSBAUM, RUBIN & DEMAINE  
177 Post Street, Suite 300  
San Francisco, California 94108  
Phone (415) 421-7151  
Fax (415) 362-8064

Attorneys for Ricoh Company, Ltd.

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION

SYNOPSYS, INC.

Plaintiff,

vs.

RICOH COMPANY LTD.,

Defendants.

CASE NO. CV-03-2289-MJJ (EMC)

**DECLARATION OF KENNETH W.  
BROTHERS IN SUPPORT OF  
RICOH'S OPPOSITION TO SYNOPSYS  
MOTION TO COMPEL RESPONSES TO  
SYNOPSYS, INC'S FIRST SET OF  
INTERROGATORIES**

**Date: May 14, 2004  
Time: 10:30 AM  
Courtroom: C, 15th Floor  
Judge: Hon. Edward M. Chen**

CASE NO. CV-03-2289-MJJ (EMC)  
Declaration Of Kenneth W. Brothers In Support Of Ricoh's Opposition  
To Synopsys Motion To Compel Responses To Synopsys, Inc's First Set Of Interrogatories

1 I, Kenneth W. Brothers, declare as follows:

2 1. I am an attorney at law, admitted *pro hac vice* in this case, and a partner in the law  
3 firm of Dickstein Shapiro Morin & Oshinsky, LLP, attorneys for defendant Ricoh Company Ltd.  
4 (“RicoH”). The matters set forth in this declaration are based on my personal knowledge, except  
5 where indicated otherwise, and if called as a witness, I could and would testify competently  
6 thereto.

7 2. This case is a Declaratory Judgment action commenced by plaintiff Synopsys,  
8 Inc. (Synopsys) asserting patent invalidity and non-infringement. RicoH’s Answer (D.I. 44) does  
9 not contain a counterclaim for patent infringement. Under such circumstances, this District’s  
10 Patent L.R. 3–5(a) eliminates the timetable for responding to infringement inquiries and Patent  
11 L.R. 3–5(b) requires the parties to meet and confer to establish a new timetable. RicoH has made  
12 it clear to Synopsys that RicoH’s position was that Synopsys must come forward with invalidity  
13 contentions before RicoH could potentially be obligated to set forth its contentions in response to  
14 Synopsys’ non-infringement allegations in Synopsys’ Complaint. This position was based at  
15 least in part on the fact that RicoH had had made no infringement counterclaim and had issued a  
16 covenant not to sue Synopsys. Synopsys has not to date come forward with its Preliminary  
17 Invalidity Charts nor otherwise revealed what RicoH considers meaningful information about its  
18 non-infringement contentions. Further, Synopsys has not produced its software source code for  
19 the products it contends do not infringe and has withheld most of its confidential information  
20 regarding such products. No meet and confer under Patent L.R. 3-5(b) has ever been held.

21 3. While Patent L.R. 2-2 establishes confidentiality in the absence of a protective  
22 order, Synopsys refused to make its source code available for inspection by RicoH until such a  
23 protective order was actually entered, and even though it now has entered, Synopsys has  
24 indicated that the earliest it would make the code available is May 10, 2004. Attached hereto as  
25 Exhibit 1 is a true and correct copy of the letter dated April 8, 2004 from Christopher Kelley to  
26 Edward A. Meilman providing such indication.

1           4. Synopsys issued a First Set of Interrogatories to which Ricoh responded and later  
2 issued a supplemental response. It is that supplemental response that is the subject of the instant  
3 motion.

4           5. I participated in a telephonic meet and confer on March 17, 2004, with Thomas C.  
5 Mavrakakis, an attorney for Synopsys. During that conference, I indicated that Ricoh was  
6 relying on all of the objections it had already raised, and not merely the two objections to which  
7 Mr. Mavrakakis refers to in his March 31, 2004 Declaration in support of this motion. I also  
8 indicated that Ricoh was going to further supplement its responses based on its contentions in the  
9 companion lawsuit (*Ricoh Company, Ltd. v. Aeroflex Inc. et al.*, Civil Action No. C03-02289  
10 MJJ) in which Ricoh alleged that the defendants there had used the process set forth in process  
11 claims 13-17 of the '432 patent, and in so doing, had used Synopsys' Design Compiler products  
12 in carrying out part of the process. The defendants in the companion case were going to be given  
13 additional details about their infringement and Synopsys is controlling the defense in that case,  
14 using the same attorneys as here. To not give Synopsys the same information in this suit made  
15 no sense. Mr. Mavrakakis indicated that Synopsys would not find such supplementation  
16 acceptable.

17           6. I note that Mr. Mavrakakis states in his March 31, 2004 Declaration that this issue  
18 was subsequently discussed at an in-person meet and confer on March 24, 2004. However, my  
19 notes and recollection reflect that the only issue that was discussed with Mr. Mavrakakis on that  
20 occasion related to a Rule 12(c) motion made by the defendants in the companion case.

21           7. Ricoh has now served that supplementation to make reference to the detailed  
22 Preliminary Infringement Charts that Ricoh has produced in the companion litigation against  
23 defendants which actually practice the process which Ricoh asserts constitutes patent  
24 infringement. D.I. 153, Moller Dec. Ex. G is a true and correct copy of the Preliminary  
25 Infringement Chart which Ricoh produced with respect to the defendant Aeroflex Incorporated in  
26 that companion action.

1 8. Attached hereto as Exhibit 2 is a true and correct copy of Synopsys, Inc.'s  
2 Response to Ricoh Company, Ltd.'s First Set of Interrogatories.

3 9. Attached hereto as Exhibit 3 is a true and correct copy of Ricoh's Second  
4 Supplemental response to Synopsys' First Set of Interrogatories (Nos. 1-6), served on April 14,  
5 2004.

6 I declare under penalty of perjury under the laws of the United States of America that  
7 the foregoing is true and correct. Executed on April 14, 2004 in Washington, D.C.

8  
9 /s/ Kenneth W. Brothers

Kenneth W. Brothers  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27



301 RAVENSWOOD AVENUE  
MENLO PARK, CA 94025-3434  
PHONE 650.463.8100  
FAX 650.463.8400  
A LIMITED LIABILITY PARTNERSHIP

CHRISTOPHER L. KELLEY  
PARTNER  
650.463.8113  
kelleyc@howrey.com

April 8, 2004

**VIA FACSIMILE AND U.S. MAIL**

Edward A. Meilman  
Dickstein Shapiro Morin & Oshinsky, LLP  
1177 Avenue of the Americas  
New York, NY 10036-2714

Re: Synopsys, Inc. v. Ricoh Company, Ltd.  
Case No. C 03-04669 MJJ (EMC)

Dear Ed:

We are targeting the Bethesda facility to open on May 10. It will be available for your use from 9 AM to 5 PM everyday. We will require identification of any software that Ricoh wishes to load onto the workstation that will be made available for your use by April 22. By that date you must provide us with a licensed binary executable of such software, suitable for execution on a Sun Sparc OS5-based workstation.

We will also require a list of the Ricoh personnel who will use the facility ten business days before any attempted entry is made. Persons entering the facility will be required to show photo identification. Persons whose names do not appear on the list or who do not provide photo identification will not be permitted entry to the facility.

Very truly yours,

Christopher L. Kelley

CLK:gg

cc: Gary M. Hoffman  
Kenneth W. Brothers

Teresa M. Corbin (SBN 132360)  
 Christopher L. Kelley (SBN 166608)  
 Thomas C. Mavrakakis (SBN 177927)  
 Erik K. Moller (SBN 147674)  
 HOWREY SIMON ARNOLD & WHITE, LLP  
 301 Ravenswood Avenue  
 Menlo Park, California 94025  
 Telephone: (650) 463-8100  
 Facsimile: (650) 463-8400

Attorneys for Plaintiff Synopsys, Inc.

UNITED STATES DISTRICT COURT  
 NORTHERN DISTRICT OF CALIFORNIA  
 SAN FRANCISCO DIVISION

SYNOPSISYS, INC.,	)	Case No. C03-02289 MJJ
	)	
Plaintiff,	)	SYNOPSISYS, INC.'S RESPONSES TO RICOH
	)	COMPANY, LTD.'S FIRST SET OF
vs.	)	INTERROGATORIES
	)	
RICOH COMPANY, LTD., a Japanese	)	
corporation.,	)	
	)	
Defendant.	)	

PROPOUNDING PARTY: Defendant Ricoh Company Ltd.

RESPONDING PARTY: Plaintiff Synopsys, Inc.

SET NUMBER: One (1)

Pursuant to Rule 33 of the Federal Rules of Civil Procedure, Plaintiff Synopsys, Inc.  
 ("Synopsys") objects and responds to Defendant Ricoh Company Ltd.'s ("Ricoh") First Set of  
 Interrogatories to Synopsys as follows:

**I. GENERAL OBJECTIONS**

The following general objections should be interpreted to apply to each individual interrogatory  
 as if set forth in full in response to each individual interrogatory:

1           1.       Synopsisys objects to Ricoh's First Set of Interrogatories as well as the instructions and  
2 definitions for them to the extent that Ricoh seeks to impose an obligation greater than those imposed  
3 by the relevant Federal Rules of Civil Procedure and the Local Rules in this District.

4           2.       Synopsisys objects to Ricoh's First Set of Interrogatories as well as the instructions and  
5 definitions for them to the extent that Ricoh seeks information protected by the attorney-client  
6 privilege, the attorney work product immunity, and/or any other recognized privilege or immunity  
7 from discovery.

8           3.       Synopsisys objects to Ricoh's First Set of Interrogatories as well as the instructions and  
9 definitions for them to the extent that Ricoh seeks information not relevant to any claim or defense in  
10 this action, or that are not reasonably calculated to lead to the discovery of admissible evidence in the  
11 present action.

12          4.       Synopsisys objects to Ricoh's First Set of Interrogatories as well as the instructions and  
13 definitions for them to the extent that Ricoh seeks information that is readily available from public  
14 sources.

15          5.       Synopsisys objects to Ricoh's First Set of Interrogatories as well as the instructions and  
16 definitions for them to the extent they are vague, ambiguous, overly broad, unduly burdensome, fail to  
17 reasonable identify the information sought, and/or seek a legal conclusion or expert opinion.

18          6.       Synopsisys objects to Ricoh's First Set of Interrogatories as well as the instructions and  
19 definitions for them to the extent that they are unreasonably cumulative or duplicative or seek  
20 information that is obtainable from some other source that is more convenient, less burdensome, or less  
21 expensive.

22          7.       Synopsisys objects to Ricoh's First Set of Interrogatories as well as the instructions and  
23 definitions for them to the extent that they seek information for time periods beyond those relevant to  
24 the claims and defenses in the instant action on the grounds that such requests are overly broad, unduly  
25 burdensome, and seek information that is neither relevant nor reasonably calculated to lead to the  
26 discovery of admissible evidence in the present action.

27          8.       Synopsisys objects to Ricoh's First Set of Interrogatories as well as the instructions and  
28 definitions for them to the extent that they seek information the production of which would violate any

1 Protective Order entered by a court of competent jurisdiction.

2 9. Synopsys objects to Ricoh's First Set of Interrogatories as well as the instructions and  
3 definitions for them to the extent that they seek information that constitutes Synopsys Trade Secrets.

4 10. Synopsys objects to Ricoh's First Set of Interrogatories as well as the instructions and  
5 definitions for them to the extent that they seek information in a form that is inaccessible and/or cannot  
6 be accessed without constituting an undue burden or expense to Synopsys.

7 11. Synopsys objects to the definition of "Documents" to the extent it is inconsistent with or  
8 goes beyond the meaning set forth in Rule 34 of the Federal Rules of Civil Procedure.

9 12. Synopsys objects to the definition of "Synopsys" to the extent that it seeks information  
10 from individuals or entities over which Synopsys has no control or unauthorized persons purporting to  
11 act on Synopsys' behalf.

12 13. Synopsys objects to the definition of "Synopsys" to the extent that it purports to include  
13 consulting experts who will not called to testify at trial. Synopsys further objects to the definition to  
14 the extent that it purports to include attorneys and therefore, any requests using such definition as  
15 seeking information protected by the attorney-client privilege and/or the attorney work product  
16 immunity.

17 14. Synopsys objects to the definition "ASIC Design System" to the extent that the  
18 definition is vague, overly broad, unduly burdensome and not reasonably calculated to lead to the  
19 discovery of admissible evidence.

20 15. Synopsys objects to the definition "ASIC Method" to the extent that the definition is  
21 vague, overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of  
22 admissible evidence.

23 **RESPONSES AND OBJECTIONS TO SPECIFIC INTERROGATORIES**

24 **INTERROGATORY NO. 1:**

25 Identify each and every product and/or process that Synopsys has made, used, offered to sell,  
26 sold, or licensed in the United States or imported into the United States since the issue date of the '432  
27 patent.



**RESPONSE TO INTERROGATORY NO. 1:**

**Objection—Overly Broad/Unduly Burdensome:** This discovery request imposes an undue burden on Synopsys in that this request is neither narrowly tailored to elicit information relevant to the present action nor reasonably calculated to lead to the discovery of admissible evidence.

Subject to and without waiving these objections, including the foregoing general objections, Synopsys, at this time, responds as follows: Based on Ricoh's threats of patent infringement litigation to certain of Synopsys' customers and litigation brought against certain other of Synopsys' customers, the only Synopsys software product(s) at issue in the present declaratory judgment action are: Synopsys' Design Compiler® software, the HDL Compiler® and HDL Compiler® for Verilog software that is designed for use with Design Compiler®, the Design Ware Foundation Libraries® and Design Ware Libraries ("Synopsys Accused Software").

**INTERROGATORY NO. 2:**

Separately for each product and/or process identified in response to Interrogatory No. 1, set forth each and every reason that tends to support or otherwise relates to Synopsys' allegation in paragraph 18 of the Compliant that "Synopsys has not made, used, offered to sell, sold, within the United States, or imported into the United States, any products or processes that infringe on any valid claim of the '432 Patent, either directly, indirectly, contributorily or otherwise, and has not induced others to infringe the '432 Patent."

**RESPONSE TO INTERROGATORY NO. 2:**

Subject to the foregoing general objections, Synopsys, while reserving the right to supplement based on subsequent construction of the claims of the '432 patent by the Court and information learned during discovery, responds as follows: based on Synopsys' current understanding of the claims of the '432 patent, the Synopsys Accused Software does not perform any step of:

*[with respect to claim 13 (and dependent claims)]*

(1) "storing a set of definitions of architecture independent actions and conditions." The meaning of "architecture independent actions and conditions" is an issue that will likely be resolved in claim construction. In the context of the '432 patent, "actions" and "conditions" have a very specific

1 meaning. The Synopsys Accused Software does not have any capacity to store definitions of “actions”  
2 and “conditions” within this meaning.

3 (2) “storing data describing a set of available integrated circuit hardware cells for performing  
4 the actions and conditions defined in the stored set.” See above re actions and conditions.

5 (3) “storing in an expert system knowledge base a set of rules for selecting hardware cells to  
6 perform the actions and conditions.” The Synopsys Accused Software does not incorporate an expert  
7 system knowledge base. The Synopsys Accused Software does not include rules for selecting  
8 hardware cells to perform actions and conditions, particularly as those terms are used in the ‘432  
9 patent.

10 (4) “describing for a proposed application specific integrated circuit a series of architecture  
11 independent actions and conditions.” The Synopsys Accused Software does not accept descriptions of  
12 ASICs characterized as a series of architecture independent actions and conditions, as those terms are  
13 used in the ‘432 patent.

14 (5) “specifying for each described action and condition of the series one of said stored  
15 definitions which corresponds to the desired action or condition to be performed.” The Synopsys  
16 Accused Software does not accept descriptions of ASICs characterized as a series of architecture  
17 independent actions and conditions, as those terms are used in the ‘432 patent. Additionally, the  
18 Synopsys Accused Software does not construct a “correspondence” relationship between any element  
19 of an input description of an ASIC and any “stored definitions” of an action and condition.

20 (6) “selecting from said stored data ... and the interconnection requirements therefore.” The  
21 Synopsys Accused Software does not employ “stored definitions” or “stored data” relating to actions  
22 and conditions, as those terms are used in the ‘432 patent. Furthermore the Synopsys Accused  
23 Software does not employ a “correspondence” between elements from an input characterization of an  
24 ASIC and hardware cells. The Synopsys Accused Software does not employ “cell selection rules” or  
25 an “expert system knowledge base.”

26 [*with respect to claim 18 (and dependent claims)*]

27 (8) “storing in a macro library a set of macros defining architecture independent actions and  
28 conditions.” The meaning of “macros” is an issue that will likely be resolved in claim construction.

1 Synopsys Accused Software does not employ macros defining architecture independent actions and  
2 conditions, particularly in light of the meaning of “macros,” and “architecture independent actions and  
3 conditions” in the ‘432 patent.

4 (9) “storing in a cell library a set of available integrated circuit hardware cells for performing  
5 the actions and conditions.” The Synopsys Accused Software does not process input designs  
6 characterized in terms of actions and conditions.

7 (10) “storing in a knowledge base set of rules for selecting hardware cells from said cell library  
8 to perform the actions and conditions defined by the stored macros.” The Synopsys Accused Software  
9 does not employ a knowledge base or rules. It does not process input designs characterized in terms of  
10 actions and conditions. It does not use stored macros that define actions and conditions.

11 (11) “describing for a proposed application specific integrated circuit a flowchart comprised of  
12 elements representing a series of architecture independent actions and conditions which carry out the  
13 function to be performed by the integrated circuit.” The Synopsys Accused Software does not process  
14 input designs characterized in terms of a flowchart, and does not use input designs characterized as a  
15 series of “actions” and “conditions” as those terms are used in the ‘432 patent.

16 (12) “specifying for each described action and condition of said series a macro selected from  
17 the macro library which corresponds to the action or condition.” The Synopsys Accused Software  
18 does not process input designs characterized as “actions” and “conditions,” and does not utilize macros  
19 that correspond to specific actions and conditions.

20 (13) “applying rules of said knowledge base to the specified macros to select from said cell  
21 library the hardware cells required for performing the desired function of the application specific  
22 integrated circuit and generating for the selected integrated circuit hardware cells, a netlist defining the  
23 hardware cells which are needed to perform the desired function of the integrated circuit and the  
24 interconnection requirements therefore.” The Synopsys Accused Software does not use macros that  
25 correspond to specific actions and conditions. The Synopsys Accused Software does not use rules  
26 from a knowledge base.

27 [*with respect to other claims*]

28 (14) The Synopsys Accused Software does not employ:

- 1 • “input specification means” equivalent to those disclosed in the ‘432
- 2 patent (claim 1 and dependents),
- 3 • “cell selection means” equivalent to those disclosed in the ‘432 patent
- 4 (claim 1 and dependents),
- 5 • “netlist generator means” equivalent to those disclosed in the ‘432 patent
- 6 (claim 1 and dependents),
- 7 • “flowchart editor means,” equivalent to those disclosed in the ‘432 patent
- 8 (claims 9 and 11 and dependents),
- 9 • “macro specification means” equivalent to those disclosed in the ‘432
- 10 patent (claim 9 and dependents),
- 11 • “cell selection means” equivalent to those disclosed in the ‘432 patent
- 12 (claim 9 and dependents),
- 13 • “data path generator means” equivalent to those disclosed in the ‘432
- 14 patent (claim 9 and dependents),
- 15 • “expert system means” equivalent to those disclosed in the ‘432 patent
- 16 (claim 11 and dependents),
- 17 • a macro library defining architecture independent operations
- 18 corresponding to actions and conditions (claims 1 and 9 and dependents),
- 19 • a knowledge base containing rules for selecting hardware cells (claims 1,
- 20 9 and 11 and dependents)
- 21 • design inputs characterized as a series of actions and conditions (claims
- 22 1, 9 and 11 and dependents)
- 23
- 24
- 25
- 26

27 Also, depending on the Court’s claim construction, the ordinary use of the Synopsys Accused  
28 Software may not meet one or more of the following additional requirements in the claim limitations of

1 the '432 patent: a cell library; a list defining the series of actions and conditions; selecting a  
2 corresponding integrated hardware cell; generating from the netlist mask data; generating a controller  
3 and generating control paths.

4 In addition, any claim of the '432 patent construed by the Court to encompass the Synopsys  
5 Accused Software would render such claim invalid based on: 1) Synopsys' prior invention of the  
6 Synopsys Accused Software; 2) the prior art software from which the Synopsys Accused Software  
7 evolved; 3) the prior art of record in the file history of the '432 patent; 4) the other prior art that will be  
8 set forth in Synopsys' Patent Local Rule 3-2 disclosure; and/or, 5) the failures to comply with the  
9 written description and/or enablement requirements of 35 U.S.C. § 112 that will also be set forth in  
10 Synopsys' Patent Local Rule 3-2 disclosure.

11 To the extent Ricoh seeks the details of Synopsys' Invalidity Contentions or Synopsys' claim  
12 construction positions with this discovery request, Synopsys' objects to providing such contentions  
13 before the time when it is required to provide them under the applicable Patent Local Rules. *See*  
14 Patent Local Rule 2-5(a) and (c).

15 Synopsys may supplement and/or amend its response to this discovery request as discovery  
16 proceeds. At a minimum, the following events may be an occasion for supplementation: (i) Ricoh  
17 fully complies with all of its discovery obligations in the present action; (ii) Ricoh provides its claim  
18 construction disclosures as required by the applicable Patent Local Rules; (iii) the parties submit their  
19 Joint Claim Construction and Prehearing Statement pursuant to Patent Local Rule 4-3; and/or, (iv) the  
20 Court issues its Claim Construction Ruling in the present action. Additional supplementation may  
21 occur as necessitated by the ordinary course of discovery.

22  
23 **INTERROGATORY NO. 3:**

24 Separately for each product and/or process identified in response to Interrogatory No. 1, set  
25 forth each and every reason that tends to support or otherwise relates to Synopsys' allegation in  
26 paragraph 22 of the Compliant that "Synopsys has not made, used, offered to sell, sold, within the  
27 United States, or imported into the United States, any products or processes that infringe on any valid  
28

claim of the '016 Patent, either directly, indirectly, contributorily or otherwise, and has not induced others to infringe the '016 Patent."

**RESPONSE TO INTERROGATORY NO. 3:**

Objection—Overly Broad/Unduly Burdensome: This discovery request imposes an undue burden on Synopsys in that this request is neither narrowly tailored to elicit information relevant to the present action nor reasonably calculated to lead to the discovery of admissible evidence.

Subject to and without waiving these objections, including the foregoing general objections, Synopsys, at this time, responds as follows: based on Synopsys' current understanding of the claims of the '016 patent, the Synopsys Accused Software does not include at least the following:

- "input means" or equivalents disclosed in the '016 patent (claim 1 and dependent claims).
- "computer operated means" or equivalents disclosed in the '016 patent (claim 1 and dependent claims).
- "means defining software instructions of the software subsystem" or equivalents disclosed in the '016 patent (claim 1 and dependent claims).
- "means defining a microprocessor for executing the software instructions of the software subsystem" or equivalents disclosed in the '016 patent (claim 1 and dependent claims).
- "means defining hardware elements for executing the hardware functions of the hardware subsystem" or equivalents disclosed in the '016 patent (claim 1 and dependent claims).
- "means defining interconnections between the microprocessor" or equivalents disclosed in the '016 patent (claim 1 and dependent claims).
- "a macro library defining a set of architecture independent operations comprised of actions and conditions" (claims 4 & 19 and dependents). The Synopsys Accused Software does not operate on input designs characterized by "actions and conditions" as those terms are used in the '016 patent. The Synopsys Accused Software also does not employ corresponding to specific actions and conditions.

- 1 • “specification input means” or equivalents disclosed in the ‘016 patent (claim 4 and  
2 dependents).
- 3 • “a software subroutine library” (claims 4 & 19 and dependents). The Synopsys  
4 Accused Software does not include any library of software subroutines for deployment  
5 as microcode, firmware or other software to be used in a target system.
- 6 • “selection means” or equivalents disclosed in the ‘016 patent (claims 4 & 19 and  
7 dependents)
- 8 • “flowchart editor means” or equivalents disclosed in the ‘016 patent (claim 19 and  
9 dependents)

10 The Synopsys Accused Software does not perform the steps of:

- 11 • “storing in a micro library in said computer system, a set of definitions of possible  
12 architecture independent actions and conditions” (claims 21 & 25 and dependents). The  
13 Synopsys Accused Software does process input designs characterized as a series of  
14 “actions” and “conditions” as those terms are used in the ‘016 patent and does not  
15 employ a micro library containing macros corresponding to actions and conditions.
- 16 • “storing in a hardware cell library ... data describing a set of available integrated circuit  
17 hardware cells for performing the architecture independent actions and conditions.”  
18 (claims 21 & 25 and dependents). The Synopsys Accused Software does not employ  
19 hardware cell libraries containing cells corresponding to actions and conditions.
- 20 • “storing in a software subroutine library ... data describing a set of software subroutines  
21 for performing the architecture independent actions and conditions.” (claims 21 & 25  
22 and dependents). The Synopsys Accused Software does not employ software  
23 subroutine libraries containing software instructions to be executed by a microprocessor  
24 included in a target integrated circuit corresponding to actions and conditions in the  
25 input circuit design.
- 26 • “describing for a proposed application specific integrated circuit a series of architecture  
27 independent actions and conditions” (claims 21 & 25 and dependents). The Synopsys  
28



1 Accused Software does not process input circuit descriptions characterized as a series of  
2 "actions" and "conditions" as those terms are used in the '016 patent.

- 3 • "storing in a knowledge base ... a set of rules" (claim 25 and dependents). The  
4 Synopsys Accused Software does not utilize a knowledge base or a set of rules.
- 5 • "applying rules of said knowledge base" (claim 25 and dependents). See above.

6 The Synopsys Accused Software also does not use a logic synthesis process in which stored  
7 macro definitions are selected based on their correspondence to actions or conditions (claims 25 & 29)  
8 and does not implement logic identified in a design input as a microprocessor and associated software,  
9 as required by all of the claims of the '016 patent.

10 In addition, any claim of the '016 patent construed by the Court to encompass the Synopsys  
11 Accused Software would render such claim invalid based on: 1) Synopsys' prior invention of the  
12 Synopsys Accused Software; 2) the prior art software from which the Synopsys Accused Software  
13 evolved; 3) the prior art of record in the file history of the '016 patent; 4) the other prior art that will be  
14 set forth in Synopsys' Patent Local Rule 3-2 disclosure; and/or, 5) the failures to comply with the  
15 written description and/or enablement requirements of 35 U.S.C. § 112 that will also be set forth in  
16 Synopsys' Patent Local Rule 3-2 disclosure.

17 To the extent Ricoh seeks the details of Synopsys' Invalidity Contentions or Synopsys' claim  
18 construction positions with this discovery request, Synopsys objects to providing such contentions  
19 before the time when it is required to provide them under the applicable Patent Local Rules. *See*  
20 Patent Local Rule 2-5(a) and (c).

21 Synopsys may supplement and/or amend its response to this discovery request as discovery  
22 proceeds. At a minimum, the following events may be an occasion for supplementation: (i) Ricoh  
23 fully complies with all of its discovery obligations in the present action; (ii) Ricoh provides its claim  
24 construction disclosures as required by the applicable Patent Local Rules; (iii) the parties submit their  
25 Joint Claim Construction and Prehearing Statement pursuant to Patent Local Rule 4-3; and/or, (iv) the  
26 Court issues its Claim Construction Ruling in the present action. Additional supplementation may  
27 occur as necessitated by the ordinary course of discovery.



**INTERROGATORY NO. 4:**

Describe the history of the development of each and every product and/or process identified in response to Interrogatory No. 1.

**RESPONSE TO INTERROGATORY NO. 4:**

Objection—Overly Broad/Unduly Burdensome: This discovery request imposes an undue burden on Synopsys in that this request is neither narrowly tailored to elicit information relevant to the present action nor reasonably calculated to lead to the discovery of admissible evidence.

Objection—Vague and Ambiguous: This discovery request is rendered vague and/or ambiguous by its use of the phrase “describe the history of the development.”

Subject to and without waiving these objections, including the foregoing general objections, Synopsys, at this time, responds as follows:

The Synopsys Accused Software was developed based on and/or evolved from the first releases of Synopsys’ Design Compiler product, which was commercially introduced into the market as early as June 1988. The Design Compiler software was designed in 1986 and 1987 and the code for this software was written in 1987 and 1988. The Design Compiler software evolved from and included elements of the rule-based Socrates logic synthesis system developed by the founders of Synopsys when they were at General Electric’s Calma division, and an algorithmic optimizer based on the MIS system developed by Rick Rudell at UC Berkeley. Mr. Rudell’s work was described in his Ph.D. Qualifying Exam paper of Sept. 29, 1987. During the early 1990s the rule-based elements of the Design Compiler system were removed in favor of algorithmic-based optimization software known as “sot.” The HDL compilation elements of the original Design Compiler software trace their origin to BDSyn software developed at the University of California by Russ Segal. The BDSyn software is described in Mr. Segal’s Masters Thesis, dated May 2, 1987. The BDSyn software was extended to include support for verilog by the Synopsys team in early 1988.

Synopsys has continued to make improvements to the Design Compiler software and to HDL compiler software for processing HDL inputs to Design Compiler from the time of original development of these products through to the current day. It is not reasonable to attempt to describe every event in the development of these products in response to this interrogatory. If Ricoh is

1 interested in particular aspects of the Design Compiler software or particular design alterations, it  
 2 should propound discovery directed to those specific issues.

3 **INTERROGATORY NO. 5:**

4 Set forth all facts and identify all documents relating to Synopsys' allegations in paragraph 29  
 5 of the complaint, including without limitation for each such fact the identity of each individual having  
 6 any relevant information.

7 **RESPONSE TO INTERROGATORY NO. 5:**

8 Subject to the foregoing general objections, Synopsys, at this time, responds as follows:

9 Synopsys' claim in paragraph 29 of its Complaint for Declaratory Judgment dated May 15,  
 10 2003 that Ricoh is barred from recovery for any alleged patent infringement under the equitable  
 11 principle of estoppel is based on the following facts:

- 12 1) The '432 patent issued on May 1, 1990. *See* U.S. Patent No. 4,922,432.
- 13 2) Agents of the inventors and assignees made attempts to license the '432 patent to  
 14 Synopsys in 1991 and 1992. *See* Deposition of James Davis at 112:1-11; Documents Bates No.  
 15 SP00154.
- 16 3) These efforts to license the '423 patent were abandoned. *See* Deposition of James  
 17 Davis at 112:14-19.
- 18 4) Ricoh filed its patent infringement complaint against Aeroflex, Inc., AMI  
 19 Semiconductor, Matrox Electronic Systems Ltd., Matrox Graphics Inc., Matrox Int'l, Inc., and Matrox  
 20 Tech., Inc. in January 2003.

21 Synopsys reserves the right to supplement this interrogatory answer in light of additional  
 22 information developed during discovery in this case.

23  
 24 Dated: December 22, 2003

Respectfully submitted,

25 HOWREY SIMON ARNOLD & WHITE, LLP

26  
 27 By: Erik K. Moller/cgy  
 28 Erik K. Moller  
 Attorneys for Plaintiff SYNOPSYS, INC.

**CERTIFICATE OF SERVICE**

I am employed in the City and County of San Mateo, State of California in the office of a member of the bar of this court at whose direction the following service was made. I am over 18 years of age and am not a party to this action. My business address is 301 Ravenswood Avenue, Menlo Park, CA 94025.

On December 22, 2003, a true copy of

**SYNOPSISYS, INC.'S RESPONSES TO RICOH COMPANY, LTD.'S  
FIRST SET OF INTERROGATORIES**

was served on the following:

Edward A. Meilman  
Dickstein Shapiro Morin & Oshinsky, LLP  
1177 Avenue of the Americas  
New York, NY 10036-2714 Facsimile (212) 896-5471


Jeffrey Demain, Esq.  
Altshuler, Berzon, Nussbaum, Rubin & Demain  
177 Post Street, Suite 300  
San Francisco, CA 94108 Facsimile (415) 362-8064

Gary M. Hoffman  
Dickstein Shapiro Morin & Oshinsky, LLP  
2101 L. Street N.W.  
Washington, DC 20037-1526 Facsimile (202) 887-0689

- ☒ (BY U.S. MAIL – CCP § 1013a(1)) I am personally and readily familiar with the business practice of Howrey Simon Arnold & White, LLP for collection and processing of correspondence for mailing with the United States Postal Service, and I caused such envelope(s) with postage thereon fully prepaid to be placed in the United States Postal Service at Menlo Park, California.
- ☒ (BY FACSIMILE – CCP § 1013(e)) I am personally and readily familiar with the business practice of Howrey Simon Arnold & White, LLP for collection and processing of document(s) to be transmitted by facsimile and I caused such document(s) on this date to be transmitted by facsimile to the offices of addressee(s) at the numbers listed below.
- ☐ (PERSONAL SERVICE) I caused each such envelope to be delivered by hand to the offices of each party at the address listed above.

I declare under penalty of perjury under the laws of the State of California that the above is true and correct.

Executed on December 22, 2003, at Menlo Park, CA.

  
Glenda L. Guthart

Gary M. Hoffman (*Pro Hac Vice*)  
Kenneth W. Brothers(*Pro Hac Vice*)  
DICKSTEIN SHAPIRO MORIN  
& OSHINSKY, LLP  
2101 L Street, NW  
Washington, DC 20037-1526  
Phone (202) 785-9700  
Fax (202) 887-0689

Edward A. Meilman (*Pro Hac Vice*)  
DICKSTEIN SHAPIRO MORIN  
& OSHINSKY, LLP  
1177 Avenue of the Americas  
New York, New York 10036-2714  
Phone (212) 835-1400  
Fax (212) 997-9880

Jeffrey B. Demain, State Bar No. 126715  
Jonathan Weissglass, State Bar No. 185008  
ALTSHULER, BERZON, NUSSBAUM, RUBIN & DEMAINE  
177 Post Street, Suite 300  
San Francisco, California 94108  
Phone (415) 421-7151  
Fax (415) 362-8064

Attorneys for Defendant

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION

SYNOPSYS, INC.,

Plaintiff,

vs.

RICOH COMPANY, LTD,

Defendant.

)  
)  
) Case No. C03-02289 MJJ (EMC)  
)  
) DECLARATORY JUDGMENT ACTION  
)  
) RICOH'S SECOND SUPPLEMENTAL  
) RESPONSE TO SYNOPSYS' FIRST SET  
) OF INTERROGATORIES (NOS. 1-6)  
)  
)  
)

Pursuant to Rules 26 and 33 of the Federal Rules of Civil Procedure, Defendant Ricoh Company, Ltd.,  
("Ricoh") hereby responds to Plaintiff Synopsys, Inc.'s ("Synopsys") First Set Of Interrogatories (Nos.  
1-6).

1 These responses are based on information reasonably available to Ricoh at the present time. Ricoh  
2 reserves the right to supplement these responses when, and if, additional information becomes available.  
3 Ricoh also reserves the right to object on any ground at any time to such other or supplemental  
4 Interrogatories Synopsys may propound involving or relating to the subject matter of these  
5 Interrogatories.

6 OBJECTIONS TO DEFINITIONS / INSTRUCTIONS

7 1. Ricoh objects to all of the Interrogatories to the extent that they seek discovery of information or  
8 documents exceeding, or seek to impose definitions and instructions exceeding, the permissible scope of  
9 discovery under the Federal Rules of Civil Procedure ("FRCP" or the "Federal Rules"), the local civil  
10 rules of this Court and applicable case law.

11 2. Ricoh objects to all of the Interrogatories to the extent they require Ricoh to seek information or  
12 documents beyond that in its possession, custody, or control as such production is beyond the  
13 permissible scope of the Federal Rules and applicable law, and would further pose an undue burden on  
14 Ricoh.

15 3. Ricoh objects to all of the Interrogatories to the extent that they seek information or documents  
16 protected by the attorney-client privilege, the work product doctrine, and/or any other privilege or  
17 immunity. Ricoh does not intend to provide Synopsys, Inc. ("Synopsys" or "Plaintiff") with such  
18 protected information. Moreover, any inadvertent disclosure of such information, or any disclosure of  
19 documents underlying that information, shall not be deemed a waiver of the attorney-client privilege, the  
20 work product doctrine, or any other privilege or immunity. Privileged documents that are otherwise  
21 responsive to any interrogatory will be identified on a privilege log in accordance with FRCP 26(b)(5).

22 4. Ricoh objects to all of the Interrogatories to the extent that they seek to impose an obligation of a  
23 continuing nature beyond that required by FRCP 26(e).

24 5. Ricoh objects to all of the Interrogatories to the extent that they seek to impose a premature  
25 obligation to provide information in light of Patent Local Rules, including, but not limited to, Patent  
26 Local Rule 2-5.

27 6. Ricoh objects to the definition of "'Ricoh,' 'Defendant,' 'you,' and 'your'" because the phrase  
28 "predecessors in interest" both is vague so as to not be clear and comprehensible and also is overly

1 broad because the phrase purports to include independent third parties (e.g., International Chip  
2 Corporation and Knowledge Based Silicon Corporation). In responding to these requests, Ricoh limits  
3 its response to Ricoh Company, Ltd. However, Ricoh is willing to provide information relating to the  
4 International Chip Corporation and Knowledge Based Silicon Corporation if within Ricoh's possession,  
5 custody and control. Further, with respect to Interrogatories seeking information from individual  
6 persons within Ricoh, Ricoh limits its response to current employees. Ricoh objects to all of the  
7 Requests as overly broad and unduly burdensome to the extent that they seek information beyond what  
8 is available from a reasonable search of Ricoh's files likely to contain relevant or responsive documents  
9 and a reasonable inquiry of Ricoh's current employees.

10 **RESPONSES AND SPECIFIC OBJECTIONS TO SYNOPSIS' FIRST SET OF**  
11 **INTERROGATORIES (1-6)**

12 Statements made herein regarding Ricoh's intention to provide information or documents  
13 responsive to any given Interrogatory does not necessarily indicate or imply the existence of any  
14 information or documents responsive thereto. Furthermore, any information provided or referred to  
15 herein is not deemed to be a waiver of Ricoh's objections as to the competency, relevance, privilege or  
16 admissibility of evidence in this or any subsequent proceeding or trial in this or any other action for any  
17 purpose whatsoever.

18 Discovery and trial preparation in this matter have not been completed. Ricoh is continuing its  
19 investigation to obtain information responsive to the Interrogatories. Therefore, all of the following  
20 responses are given without prejudice to Ricoh's right to introduce documents or information discovered  
21 or deemed responsive subsequent to the date of these responses.

22 Ricoh incorporates all of its Objections to Definitions / Instructions set forth above and, subject to and  
23 without waiving these Objections to Definitions / Instructions, further objects and responds to the  
24 numbered Interrogatories as follows:

25 **INTERROGATORY NO. 1:**

26 What are the functions that Synopsys' Design Compiler software is capable of performing that  
27 Ricoh claims meet the elements (either literally or under the doctrine of equivalents) of the '432 patent  
28 claims?

**RESPONSE:**

Ricoh incorporates by reference its Objections to Definitions / Instructions. Ricoh interprets this Interrogatory request as questioning how Design Compiler can be used by someone in combination with other activity so as to infringe the '432 patent and, therefore, Synopsys is, in effect, requesting from Ricoh an infringement analysis of conduct by some entity other than Synopsys. The instant suit is a declaratory judgment action filed by Synopsys in which there are no alleged claims of infringement and Synopsys has not identified the specific patent claims it is placing at issue and has not provided any information as to any theory of non-infringement. Synopsys also has alleged that its Design Compiler software is irrelevant and that the activities of the users of such software are irrelevant and has only provided very limited discovery regarding the details of Design Compiler. Therefore, Ricoh objects to this request in that inter alia it does not relate to any specific claim or defense actually being made by any party in this Declaratory Judgement action. This interrogatory is premature since discovery is just beginning, it seeks expert opinions, and it seeks information not required by the local patent rules for declaratory judgment actions. Ricoh is under no obligation to provide any infringement analysis in this particular action at this point in time. Further, Ricoh objects because this interrogatory seeks information which is premature under Patent Local Rule 2-5 prior to a timetable established by the Patent Local Rules or agreement between the parties.

Subject to and without waiving such objections, Ricoh states that the ASIC defendants are infringing at least process claim 13 of the '432 patent based, inter alia, on the use by the defendants in Ricoh v. Aeroflex et al, CV-30-4669 MJJ (EMC)("ASIC defendants") of Synopsys' Software tools, including Design Compiler for the design of ASIC products. Such use, for example, involves the input to Design Compiler of hardware description languages that describe behavioral aspects of an ASIC under design. Design Compiler is then used to draw on its technology, symbol, DesignWare, and/or other libraries to synthesize the hardware cells to be implemented in the desired ASIC as needed to perform the functions described by a given input description.

Upon information and belief, the ASIC defendants particularly use several software tools, including Design Compiler to perform steps of: storing a set of definitions of architecture independent actions and conditions, storing data describing available hardware cells for performing the actions and



1 conditions, storing in an expert system knowledge base a set of rules for selecting the hardware cells,  
2 describing for the proposed ASIC a series of architecture independent actions and conditions, specifying  
3 one of the stored definitions that corresponds to a desired action or condition, selecting a hardware cell  
4 for performing the desired function of the ASIC through use of cell selection rules stored in the expert  
5 system knowledge base, and generating a netlist defining the hardware cells of the proposed ASIC.

6 Ricoh has not made any allegations of infringement of the '432 patent against Synopsys and has  
7 covenanted not to sue Synopsys with respect to its present Design Compiler product. With respect to the  
8 ASIC defendants that are infringing process claims 13-17 of the '432 patent, Synopsys' attention is  
9 drawn to Ricoh's Asserted Claims And Preliminary Infringement Charts recently served in the related  
10 case of Ricoh v. Aeroflex et al, CV-30-4669 MJJ (EMC). With respect to claims other than 13-17,  
11 Ricoh takes no position at this time and has made no "claims".

12 Ricoh will provide an appropriate further response after discovery is obtained and Synopsys  
13 complies with its discovery obligations and in accordance with, and if required by, a scheduling order  
14 entered in this case, unless there exists another ground for objection.

15 **INTERROGATORY NO. 2:**

16 Identify any evidence that supports Ricoh's claims that Synopsys' Design Compiler software is  
17 capable of performing the Design Compiler software functions identified in response to Interrogatory  
18 No. 1.

19 **RESPONSE:**

20 Ricoh incorporates by reference its to Objections to Definitions / Instructions. Ricoh interprets  
21 this Interrogatory request as questioning how Design Compiler Software infringes the '432 patent and,  
22 therefore, Synopsys is, in effect, requesting from Ricoh an infringement analysis. The instant suit is a  
23 declaratory judgment action filed by Synopsys in which there are no claims of infringement and  
24 Synopsys has not identified the specific patent claims it is placing at issue and has not provided any  
25 information as to any theory of non-infringement. Synopsys also has alleged that its Design Compiler  
26 software is irrelevant and that the activities of the users of such software are irrelevant and has only  
27 provided very limited discovery regarding the details of Design Compiler. Therefore, Ricoh objects to  
28 this request in that inter alia it does not relate to any specific claim or defense actually being made by



1 any party in this Declaratory Judgment action. Further, Synopsys has contended that the Design  
2 Compiler software is not relevant to Synopsys claims and has refused to produce such software. This  
3 interrogatory is premature since discovery is just beginning, it seeks information protected by the  
4 attorney work product doctrine, it seeks expert opinion, and seeks information not required by the local  
5 patent rules for declaratory judgment actions. Ricoh is under no obligation to provide any infringement  
6 analysis in this particular action at this point in time. Ricoh further objects to this Interrogatory to the  
7 extent it purports to be a request for documents. Further, Ricoh objects because this interrogatory  
8 seeks premature information under Patent Local Rule 2-5 prior to a timetable established by the Patent  
9 Local Rules or agreement between the parties.

10 Subject to and without waiving such objections, documents responsive to this interrogatory have  
11 been produced to Synopsys counsel under FRCP 33(d), including, for example, Ricoh document Nos.  
12 RCL008608-42. Ricoh has not made any allegations of infringement of the '432 patent against  
13 Synopsys and has covenanted not to sue Synopsys with respect to its present Design Compiler product.  
14 With respect to the ASIC defendants that are infringing process claims 13-17 of the '432 patent,  
15 Synopsys' attention is drawn to Ricoh's Asserted Claims And Preliminary Infringement Charts recently  
16 served in the related case of Ricoh v. Aeroflex et al, CV-30-4669 MJJ (EMC). With respect to claims  
17 other than 13-17, Ricoh takes no position at this time and has made no "claims."

18 Ricoh will provide an appropriate further response after discovery is obtained and Synopsys  
19 complies with its discovery obligations and in accordance with, and if required by, a scheduling order  
20 entered in this case, unless there exists another ground for objection.

21 **INTERROGATORY NO. 3:**

22 Identify any evidence that supports Ricoh's claims that Synopsys' Design Compiler software  
23 meet the elements (either literally or under the doctrine of equivalents) of the '432 patent claims.

24 **RESPONSE:**

25 Ricoh incorporates by reference its to Objections to Definitions / Instructions. Ricoh interprets  
26 this Interrogatory request as questioning how Design Compiler software infringes the '432 patent and,  
27 therefore, this interrogatory seeks a comparison between the Design Compiler software and claims 1-12  
28 of the '432 patent. Synopsys is, in effect, requesting from Ricoh an infringement analysis of claims that

1 Ricoh has not asserted in any lawsuit against any party. Ricoh has not contended that the Design  
2 Compiler software per se infringes any claims of the '432 patent. The instant suit is a declaratory  
3 judgment action filed by Synopsys in which there are no claims of infringement and Synopsys has not  
4 identified the specific patent claims it is placing at issue and has not provided any information as to any  
5 theory of non-infringement. Synopsys also has alleged that its Design Compiler software is irrelevant  
6 and that the activities of the users of such software are irrelevant and has only provided very limited  
7 discovery regarding the details of Design Compiler. Therefore, Ricoh objects to this request in that inter  
8 alia it does not relate to any specific claim or defense actually being made by any party in this  
9 Declaratory Judgment action. Synopsys has not identified the specific patent claims at issue and has not  
10 provided any information as to any theory of non-infringement. This interrogatory is premature since it  
11 seeks expert opinion and seeks information nor required by the local patent rules for declaratory  
12 judgment actions. Ricoh is under no obligation to provide any infringement analysis in this particular  
13 action at this point in time. Ricoh further objects to this Interrogatory to the extent it purports to be a  
14 request for documents. Further, Ricoh objects because this interrogatory seeks information premature  
15 under Patent Local Rule 2-5 prior to a timetable established by the Patent Local Rules or agreement  
16 between the parties.

17 Subject to and without waiving such objections, documents responsive to this interrogatory have  
18 been produced to Synopsys counsel under FRCP 33(d), including, for example, Ricoh document Nos.  
19 RCL008608-42. Ricoh will provide an appropriate further response after discovery is obtained and  
20 Synopsys complies with its discovery obligations and in accordance with, and if required by, a  
21 scheduling order entered in this case, unless there exists another ground for objection.

22 Ricoh has not made any allegations of infringement of the '432 patent against Synopsys and has  
23 covenanted not to sue Synopsys with respect to its present Design Compiler product. With respect to the  
24 ASIC defendants that are infringing process claims 13-17 of the '432 patent, Synopsys' attention is  
25 drawn to Ricoh's Asserted Claims And Preliminary Infringement Charts recently served in the related  
26 case of Ricoh v. Aeroflex et al, CV-30-4669 MJJ (EMC). With respect to claims other than 13-17,  
27 Ricoh takes no position at this time and has made no "claims."

28 **INTERROGATORY NO. 4:**

1 Identify any claim language in the '432 patent claims that requires a "flowchart editor."

2 **RESPONSE:**

3 Ricoh incorporates by reference its to Objections to Definitions / Instructions. Ricoh further  
4 objects since this Interrogatory requests construction and/or interpretation of '432 patent claims and  
5 objects to the Interrogatory to the extent that it seeks to impose a premature obligation to provide  
6 information in light of Patent Local Rules, including, but not limited to, Patent Local Rule 2-5. Subject  
7 to such objections and without waiver thereof, Ricoh notes that in claims 4, 5 (by dependency from  
8 claim 4), 9, 10 (by dependency from claim 9), 11, and 12 (by dependency from claim 11) expressly  
9 recite a flowchart editor.

10 Ricoh will provide an appropriate further response in accordance with, and if required by, a  
11 scheduling order entered in this case, unless there exists another ground for objection.

12 **INTERROGATORY NO. 5:**

13 Identify any claim language in the '432 patent claims that requires an "expert system for  
14 translating the flowchart into a netlist defining the necessary hardware cells of the integrated circuit."

15 **RESPONSE:**

16 Ricoh incorporates by reference its to Objections to Definitions / Instructions. Ricoh further  
17 objects since this Interrogatory requests construction and/or interpretation of '432 patent claims and  
18 objects to the Interrogatory to the extent that it seeks to impose a premature obligation to provide  
19 information in light of Patent Local Rules, including, but not limited to, Patent Local Rule 2-5. Subject  
20 to such objections and without waiver thereof, Ricoh notes that in claims 4, 5, 9, 10 (by dependency  
21 from claim 9), 11, and 12 (by dependency from claim 11), expressly recite an expert system and a  
22 flowchart.

23 Ricoh will provide an appropriate further response in accordance with, and if required by, a  
24 scheduling order entered in this case, unless there exists another ground for objection.

25 **INTERROGATORY NO. 6:**

26 Identify any claim language in the '432 patent claims that patentably distinguishes any of the  
27 '432 patent claims over United States Patent No. 4,703,435.

28 **RESPONSE:**

1 Ricoh incorporates by reference its Objections to Definitions / Instructions. Ricoh further  
2 objects to this Interrogatory on the grounds Synopsys has not set forth its invalidity contentions, and this  
3 Interrogatory seeks to impose a premature obligation to provide information despite the prohibitions in  
4 the Patent Local Rules, particularly, but not limited to, Patent Local Rule 2-5. Ricoh further objects that  
5 this Interrogatory seeks information that is irrelevant and unduly burdensome. Ricoh has not asserted  
6 any claims of the '432 patent against Synopsys and has not asserted any of claims 1-12 and 18-20 of the  
7 patent against the ASIC defendants. To seek to have Ricoh compare unasserted prior art against  
8 unasserted claims is irrelevant and unduly burdensome. Further all of the claims are presumed valid  
9 over the '435 patent which was cited by the Patent Examiner.  
10

11 Subject to the foregoing and general objections, Ricoh responds as follows:

12 The Patent Examiner in issuing the '432 patent determined that the combination of elements  
13 recited in each claims 1-20 patentably distinguishes each of these claims over United States Patent No.  
14 4,703,435 (the '435 patent). Ricoh has no reason to disagree with the Patent Examiner's determination  
15 and, therefore, presume that he was correct.

16 The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
17 combination of the following elements of Claim 1:

18 A computer-aided design system for designing an application specific integrated  
19 circuit directly from architecture independent functional specifications for the integrated  
20 circuit, comprising

21 a macro library defining a set of architecture independent operations comprised of  
22 actions and conditions;

23 input specification means operable by a user for defining architecture independent  
24 functional specifications for the integrated circuit, said functional specifications being  
25 comprised of a series of operations comprised of actions and conditions, said input  
26 specification means including means to permit the user to specify for each operation a macro  
27 selected from said macro library;  
28

1 a cell library defining a set of available integrated circuit hardware cells for  
2 performing the available operations defined in said macro library;

3 cell selection means for selecting from said cell library for each macro specified  
4 by said input specification means, appropriate hardware cells for performing the operation  
5 defined by the specified macro, said cell selection means comprising an expert system  
6 including a knowledge base containing rules for selecting hardware cells from said cell  
7 library and inference engine means for selecting appropriate hardware cells from said cell  
8 library in accordance with the rules of said knowledge base; and

9  
10 netlist generator means cooperating with said cell selection means for generating  
11 as output from the system a netlist defining the hardware cells which are needed to achieve  
12 the functional requirements of the integrated circuit and the connections there between.

13  
14 The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
15 combination of Claim 2, including all of the claimed elements recited in claim 1, as noted above, in  
16 addition to:

17 wherein said input means comprises means specification for receiving user input  
18 of a list defining the series of actions and conditions.

19  
20 The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
21 combination of Claim 3, including all of the claimed elements recited in claim 1, as noted above, in  
22 addition to:

23  
24 including mask data generator means for generating from said netlist the mask  
25 data required to produce an integrated circuit having the specified functional requirements.

1 The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
2 combination of Claim 4, including all of the claimed elements recited in claim 1, as noted above, in  
3 addition to:

4 wherein said input means comprises flowchart editor means specification for  
5 creating a flowchart having elements representing said series of actions and conditions.  
6

7 The '435 patent fails to anticipate or render obvious the combination of Claim 5, including  
8 all of the claimed elements recited in claims 1 and 4, as noted above, in addition to:

9 including flowchart simulator means for simulating the functions defined in the  
10 flowchart to enable the user to verify the operation of the integrated circuit.  
11  
12

13 The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
14 combination of Claim 6, including all of the claimed elements recited in claim 1, as noted above, in  
15 addition to:

16 including data path generator means cooperating with said cell selection means  
17 for generating data paths for the hardware cells selected by said cell selection means.  
18

19 The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
20 combination of Claim 7, including all of the claimed elements recited in claims 1 and 6, as noted above,  
21 in addition to:

22 wherein said data path generator means comprises a knowledge base  
23 containing rules for selecting data paths between hardware cells and inference engine  
24 means for selecting data paths between the hardware cells selected by said cell selection  
25 means in accordance with the rules of said knowledge base and the arguments of the  
26 specified macros.  
27  
28

1 The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
2 combination of Claim 8 including all of the claimed elements recited in claims 1 and 6, as noted above,  
3 in addition to:

4 including control generator means for generating a controller and control  
5 paths for the hardware cells selected by said cell selection means.  
6

7  
8 The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
9 combination of the following elements of Claim 9:

10 A computer-aided design system for designing an application specific  
11 integrated circuit directly from a flowchart defining architecture independent functional  
12 requirements of the integrated circuit comprising:

13 a macro library defining a set of architecture independent operations  
14 comprised of actions and conditions;

15 flowchart editor means operable by a user for creating a flowchart having  
16 elements representing said architecture independent operations;

17 said flowchart editor means including macro specification means for  
18 permitting the user to specify for each operation represented in the flowchart a macro  
19 selected from said macro library;

20 a cell library defining a set of available integrated circuit hardware cells for  
21 performing the available operations defined in said macro library;

22 cell selection means for selecting from said cell library for each specified  
23 macro, appropriate hardware cells for performing the operation defined by the specified  
24 macro, said cell selection means comprising an expert system including a knowledge  
25 base containing rules for selecting hardware cells from said cell library and inference  
26 engine means for selecting appropriate hardware cells from said cell library in accordance  
27 with the rules of said knowledge base; and  
28

1 data path generator means cooperating with said cell selection means for  
2 generating data paths for the hardware cells selected by said cell selector means, said data  
3 path generator means comprising a knowledge base containing rules for selecting data  
4 paths between hardware cells and inference engine means for selecting data paths  
5 between hardware cells selected by said cell selection means in accordance with the rules  
6 of said knowledge base and the arguments of the specified macros.  
7

8  
9 The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
10 combination of Claim 10, including all of the claimed elements recited in claim 9, as noted above, in  
11 addition to:

12 including control generator means for generating a controller and control  
13 paths for the hardware cells selected by said cell selection means.  
14

15 The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
16 combination of the following elements of Claim 11:

17 A computer-aided design system for designing an application specific  
18 integrated circuit directly from a flowchart defining architecture independent functional  
19 requirements of the integrated circuit, comprising  
20

21 flowchart editor means operable by a user for creating a flowchart having  
22 boxes representing architecture independent actions, diamonds representing architecture  
23 independent conditions, and lines with arrows representing transitions between actions  
24 and condition and including means for specifying for each box or diamond, a particular  
25 action or condition to be performed;

26 a cell library defining a set of available integrated circuit hardware cells for  
27 performing actions and conditions;  
28



1 a knowledge base containing rules for selecting hardware cells from said cell  
2 library and for generating data and control paths for hardware cells; and

3 expert system means operable with said knowledge base for translating the  
4 flowchart defined by said flowchart editor means into a netlist defining the necessary  
5 hardware cells and data and control paths required in an integrated circuit having the  
6 specified functional requirements.  
7

8  
9 The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
10 combination of Claim 12, including all of the claimed elements recited in claim 11, as noted above, in  
11 addition to:

12 including mask data generator means for generating from said netlist the mask  
13 data required to produce an integrated circuit having the specified functional  
14 requirements.  
15

16 The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
17 combination the following elements of Claim 13:

18 A computer-aided design process for designing an application specific integrated  
19 circuit which will perform a desired function comprising  
20

21 storing a set of definitions of architecture independent actions and conditions;

22 storing data describing a set of available integrated circuit hardware cells for  
23 performing the actions and conditions defined in the stored set;

24 storing in an expert system knowledge base a set of rules for selecting hardware  
25 cells to perform the actions and conditions;

26 describing for a proposed application specific integrated circuit a series of  
27 architecture independent actions and conditions;  
28

1 specifying for each described action and condition of the series one of said stored  
2 definitions which corresponds to the desired action or condition to be performed; and  
3 selecting from said stored data for each of the specified definitions a  
4 corresponding integrated circuit hardware cell for performing the desired function of the  
5 application specific integrated circuit, said step of selecting a hardware cell comprising  
6 applying to the specified definition of the action or condition to be performed, a set of cell  
7 selection rules stored in said expert system knowledge base and generating for the selected  
8 integrated circuit hardware cells, a netlist defining the hardware cells which are needed to  
9 perform the desired function of the integrated circuit and the interconnection requirements  
10 therefor.  
11  
12

13 The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
14 combination of Claim 14, including all of the claimed steps recited in claim 13, as noted above, in  
15 addition to:

16 including generating from the netlist the mask data required to produce an  
17 integrated circuit having the desired function.  
18

19 The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
20 combination of Claim 15, including all of the claimed steps recited in claim 13, as noted above, in  
21 addition to:

22 including the further step of generating data paths for the selected integrated  
23 circuit hardware cells.  
24

25  
26 The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
27 combination of Claim 16, including all of the claimed steps recited in claims 13 and 15, as noted above,  
28 in addition to:

1                    wherein said step of generating data paths comprises applying to the selected cells  
2                    a set of data path rules stored in a knowledge base and generating the data paths therefrom.

3  
4                    The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
5 combination of Claim 17, including all of the claimed steps recited in claims 13, 15 and 16, as noted  
6 above, in addition to:

7                    including the further step of generating control paths for the selected integrated  
8 circuit hardware cells.  
9

10  
11                   The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
12 combination the following elements of Claim 18:

13                   A knowledge based design process for designing an application specific  
14 integrated circuit which will perform a desired function comprising

15                   storing in a macro library a set of macros defining architecture independent  
16 actions and conditions;

17                   storing in a cell library a set of available integrated circuit hardware cells for  
18 performing the actions and conditions;

19                   storing in a knowledge base set of rules for selecting hardware cells from said cell  
20 library to perform the actions and conditions defined by the stored macros;

21                   describing for a proposed application specific integrated circuit a flowchart  
22 comprised of elements representing a series of architecture independent actions and  
23 conditions which carry out the function to be performed by the integrated circuit;

24                   specifying for each described action and condition of said series a macro selected  
25 from the macro library which corresponds to the action or condition; and  
26

27                   applying rules of said knowledge base to the specified macros to select from said  
28 cell library the hardware cells required for performing the desired function of the application

1 specific integrated circuit and generating for the selected integrated circuit hardware cells, a  
2 netlist defining the hardware cells which are needed to perform the desired function of the  
3 integrated circuit and the interconnection requirements therefor.

4  
5 The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
6 combination of Claim 19, including all of the claimed steps recited in claim 18, as noted above, in  
7 addition to:

8 including the steps of storing in said knowledge base a set of rules for creating  
9 data paths between hardware cells, and  
10 applying rules of said knowledge base to the specified means to create data paths  
11 for the selected hardware cells.  
12

13  
14 The Patent Examiner determined that the '435 patent fails to anticipate or render obvious the  
15 combination of Claim 20, including all of the claimed steps recited in claims 18 and 19, as noted above,  
16 in addition to:

17 including the steps of generating a controller and generating control paths for the  
18 selected hardware cells.  
19

20 Dated: April 14, 2004

Ricoh Company, Ltd.

By: 

23 Jeffrey B. Demain, State Bar No. 126715  
Jonathan Weissglass, State Bar No. 185008  
24 Altshuler, Berzon, Nussbaum, Rubin & Demain  
177 Post Street, Suite 300  
25 San Francisco, California 94108  
Phone: (415) 421-7151  
26 Fax: (415) 362-8064

27 Gary M. Hoffman  
Ken Brothers  
Eric Oliver  
28 DICKSTEIN SHAPIRO MORIN &

1 OSHINSKY LLP  
2 2101 L Street NW  
3 Washington, D.C. 20037-1526  
4 Telephone: (202) 785-9700  
5 Facsimile: (202) 887-0689

6 Edward A. Meilman  
7 DICKSTEIN SHAPIRO MORIN &  
8 OSHINSKY LLP  
9 1177 Avenue of the Americas  
10 New York, New York 10036  
11 Telephone: (212) 896-5471  
12 Facsimile: (212) 997-9880

13 Attorneys for Ricoh Company, Ltd.  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

IN THE UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION

SYNOPSYS, INC.

Plaintiff,

v.

RICOH COMPANY, LTD.,

Defendant.

Case No. CV-03-02289-MJJ (EMC)

CERTIFICATE OF SERVICE

I am employed in Washington, District of Columbia. I am over the age of eighteen (18) years and not a party to the within action; my business address is 2101 L Street, NW, Washington, DC, 20037. On April 14, 2004, I served the following document(s):

**RICOH'S SECOND SUPPLEMENTAL RESPONSE TO SYNOPSYS' FIRST SET OF INTERROGATORIES (NOS. 1-6)**

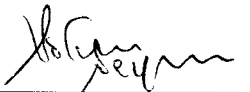
on the parties, through their attorneys of record, by forwarding true copies as shown below for service as designated below:

By Facsimile and Federal Express:

Christopher L. Kelley, Esq.  
Erik K. Moller, Esq.  
Teresa M. Corbin, Esq.  
Howrey Simon Arnold & White LLP  
301 Ravenswood Avenue  
Menlo Park, CA 94025  
Facsimile: (650) 463-8400  
Attorneys for Plaintiff

I declare that I am employed in the office of a member pro hac vice of the Bar of this Court at whose direction this service was made.

I declare under penalty of perjury that the foregoing is true and correct.  
Executed in Washington, D.C. on April 14, 2004.



Solomon Seyoum